

IN THE CLAIMS:

1-8. (Cancelled)

9. (New) A high performance liquid chromatograph, comprising (1) a component-concentrating column (M) comprising a membrane for adsorbing the target component and a membrane for diffusing a target component, provided on one side or both sides of the membrane for adsorbing the target component, and (2) a separation column (C) for separating the target component eluted from the component-concentrating column.

10. (New) The chromatograph as claimed in claim 9, wherein the membrane for diffusing the target component is comprised of a sintered filter, a ceramic, a metallic mesh, or a cellulosic fiber.

11. (New) The chromatograph as claimed in claim 9, wherein the membrane for adsorbing the target component is a membrane containing a styrene resin, a silica gel, an ion exchange resin, or a substance prepared by chemically modifying any of these substances.

12. (New) The chromatograph as claimed in claim 9, comprising a line connecting a transfer pump (P1), an injector (I), a switching valve (V), the column (M) for the concentration

of components, a switching valve (V), a solvent mixer (MC), and a switching valve (V) in this order, and another line connecting a transfer pump (P2), a switching valve (V), a separation column (C) and a detector (D).

13. (New) The chromatograph as claimed in claim 9, comprising a line connecting a transfer pump (P1), a switching valve (V), a solvent mixer (MC), and a switching valve (V) in this order, another line connecting a transfer pump (P2), a switching valve (V), a separation column (C), and a detector (D), and yet another line connecting a switching valve (V), the column (M) for the concentration of components, and a switching valve (V).

14. (New) The chromatograph as claimed in claim 9, wherein said adsorbing membrane has a thickness of 0.2 to 2 mm.

15. (New) A process for analyzing a trace target component in a sample, comprising the steps of (1) feeding a mobile phase comprising the target component to a target component-concentrating column comprising a membrane for adsorbing the target component and a membrane for diffusing a target component, provided on one side or both sides of the membrane for adsorbing the target component, to make the target component adsorb on the target component-concentrating column (M), (2) transferring the mobile phase in a reverse direction to the feeding direction to a

separation column (C) and (3) separating the target component from the separation column (C).

16. (New) The process as claimed in claim 15, wherein the membrane for diffusing the target component is comprised of a sintered filter, a ceramic, a metallic mesh, or a cellulosic fiber.

17. (New) The process as claimed in claim 15, wherein the membrane for adsorbing the target component is a membrane containing a styrene resin, a silica gel, an ion exchange resin, or a substance prepared by chemically modifying any of these substances.

18. (New) The process as claimed in claim 15, which comprises the steps of trapping a target component in the column (M) for the concentration of components by action of a mobile phase being transferred by the transfer pump (P1), and switching the switching valve to yield a target component as an effluent by action of a mobile phase being transferred by the transfer pump (P2).

19. (New) The process as claimed in claim 15, which comprises the steps of filling the solvent mixer (MC) with a solvent through the transfer pump (P1) in advance, injecting a target component into the column (M) for the concentration of

components, and switching the switching valve to yield the target component as an effluent by action of a mobile phase being transferred by the pump (P2).

20. (New) The process as claimed in claim 15, wherein said adsorbing membrane has a thickness of 0.2 to 2 mm.